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DIFFERENCES IN FITNESS BETWEEN LAW ENFORCEMENT CADETS AND OFFICERS: A RETROSPECTIVE STUDY OF TWO AGENCIES

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INTRODUCTION: Research suggests that police officers progressively become less fit during their careers which may impact their ability to perform job-specific physical tasks. However, as tasks may vary between different law enforcement agencies (LEAs), there may be differences in both fitness levels and changes in fitness between different LEAs. **PURPOSE:** To identify differences in fitness parameters between cadets and incumbent police officers across two LEAs. **METHODS:** Retrospective analysis of data from two separate LEAs were analyzed. The study cohort consisted of 388 male incumbent police officers (LEA 1 n = 72; mean age = 39.43 ± 8.28 yrs; mean weight = 87.47 ± 11.60 kg; LEA 2 n = 316; mean age = 37.92 ± 7.71 yrs; mean weight = 88.80 ± 12.93 kg) and 157 cadets (LEA 1 n = 66; mean age = 29.95 ± 5.73 yrs; mean weight = 85.65 ± 11.92 kg; LEA 2 n = 91; mean age = 30.14 ± 6.93 yrs; mean weight = 86.50 ± 12.23 kg). Fitness measures included 1 min maximum push-up repetitions (PU), and sit-up repetitions (SU), a vertical jump (VJ), and either a 1.5 mile run or a 20m multistage fitness test (20m MSFT), with the latter measures converted to VO_{2max} . Independent samples t-tests were used to compare both combined and individual LEA cadet cohorts against combined incumbent officer cohorts. Alpha levels were set at $p < 0.05$. **RESULTS:** When combined, cadets were found to be significantly younger ($p < 0.01$) and lighter ($p < 0.05$) than incumbent police officers. When divided into respective LEAs only differences in age remained between cadets and officers. When comparing fitness measures, cadets achieved higher PU, SU, VJ, and VO_{2max} scores as a cohort ($p < 0.001$ respectively) and as LEA 2 ($p < 0.01$, $p < 0.001$, $p < 0.01$ and $p < 0.001$, respectively). However, only PU, SU and VO_{2max} ($p < 0.001$ respectively) were significantly higher in LEA 1 with no differences in VJ between cadets and incumbent officers. **CONCLUSIONS:** Cadets were generally more fit than incumbent police officers, whose fitness may decrease over time due to job demands (e.g. shiftwork and stress), age-related declines, and changes in physical activity. Police officer fitness appears to peak during their time as cadets and decreases regardless of LEA. Maximizing fitness levels during cadet training and minimizing fitness loss after training is vital if incumbent officers are going to remain fit for duty.